

## HIGH VOLTAGE DIODE RECTIFIERS

### FEATURES

- PROPRIETARY **SOFT GLASS<sup>®</sup>** JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical  $\leq 2\%$ , Max.  $\leq 10\%$  of Die Area)
- EXTREMELY LOW LEAKAGE AT HIGH TEMPERATURES
- LOW FORWARD VOLTAGE DROP
- HIGH CURRENT CAPABILITY

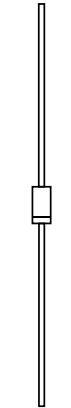
### MECHANICAL DATA

- Case: JEDEC DO-41 molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: DO-41 - 0.012 Ounces (0.34 Grams)

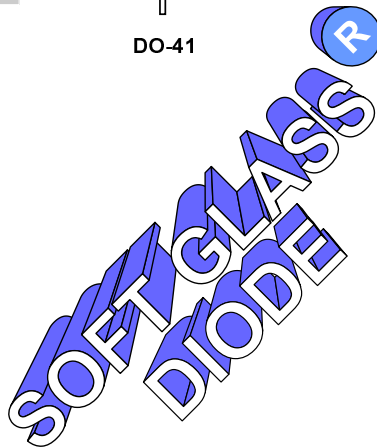
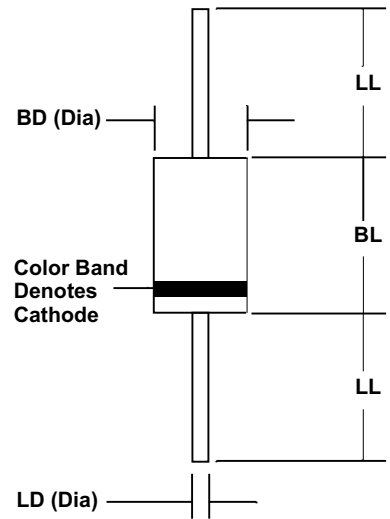
### MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-41 PACKAGE

SERIES GP1120 - GP1500



DO-41



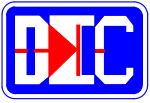
Sym	Minimum		Maximum	
	In	mm	In	mm
BL	0.160	4.1	0.205	5.2
BD	0.103	2.6	0.107	2.7
LL	1.00	25.4		
LD	0.028	0.71	0.034	0.86

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS										UNITS
		GP 1150	GP 1180	GP 1200	GP 1250	GP 1300	GP 1400	GP 1500	GP 1600			
Series Number												
Maximum DC Blocking Voltage	V <sub>RM</sub>	1500	1800	2000	2500	3000	4000	5000	6000			VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	1050	1260	1400	1750	2100	2800	3500	4200			
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	1500	1800	2000	2500	3000	4000	5000	6000			
Average Forward Rectified Current @ T <sub>A</sub> = 50 °C, Lead length = 0.375 in. (9.5 mm)	I <sub>O</sub>	1000			500			200				mA
Peak Forward Surge Current ( 8.3 mSec single half sine wave superimposed on rated load)	I <sub>FSM</sub>	35			25			15				AMPS
Maximum Forward Voltage at Rated Forward Current	V <sub>FM</sub>	1.5			3.0			4.5	6.0			VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage @ T <sub>A</sub> = 25°C	I <sub>RM</sub>	1.0										μA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	12										pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150										°C

NOTES: (1) Measured at 1MHz & applied reverse voltage of 4 volts



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## RATING & CHARACTERISTIC CURVES FOR SERIES GP1150 - GP1600

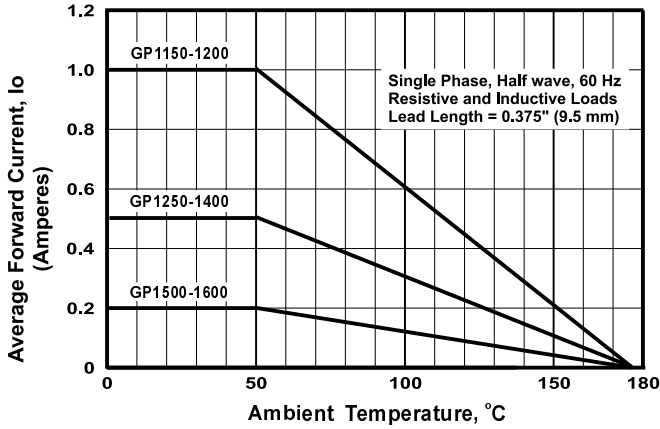


FIGURE 1. FORWARD CURRENT DERATING CURVE

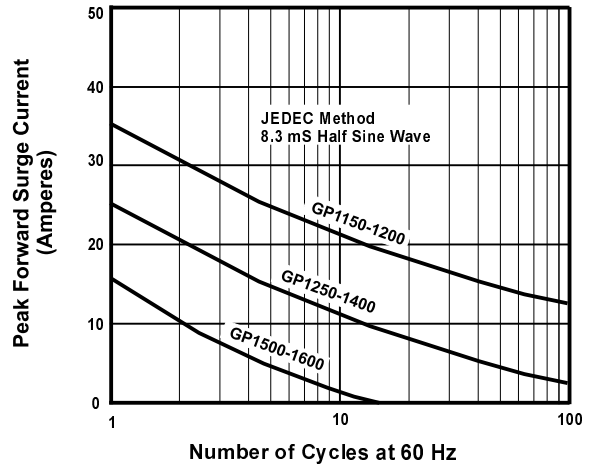


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

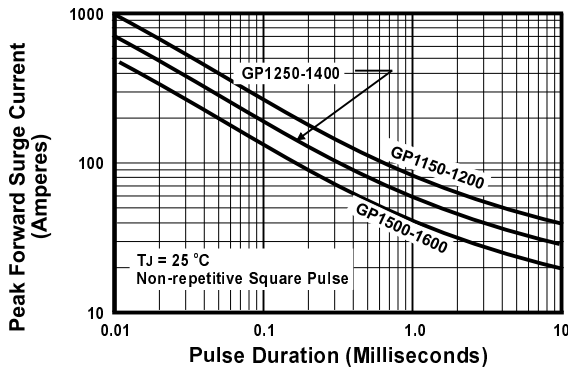


FIGURE 6. PEAK FORWARD SURGE CURRENT

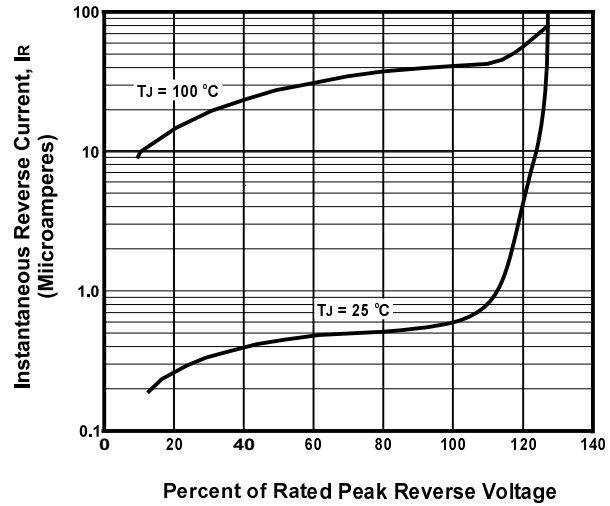


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

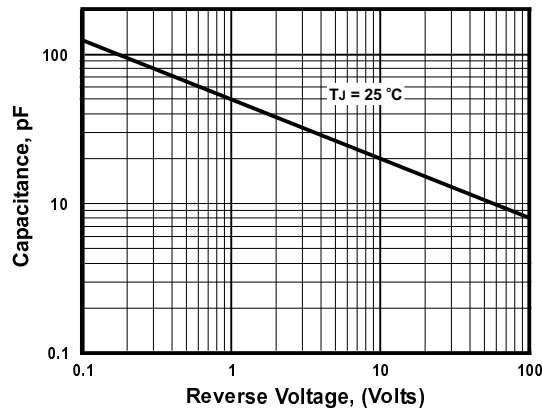


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE